June 5.—Comet well seen, considering its bad position for observation. At $6^h\ 5^m$ P.M. noted the nucleus as star-like in the telescope, but later on this was not so apparent. I have some idea a star might have been in close contiguity to the nucleus. Angles :—

At $6^h\ 20^m$ P.M. 23° 4′ from *Sirius*.
32° 16′ „ *Canopus*.

June 6.—Nucleus seen. Brightness of the comet has, I fancy, increased, but it is much obscured by moonlight. Tail could be traced for some 5° or more.

At $6^h\ 15^m$ P.M., 22° 31′ from *Sirius*.
33° 49′ „ *Canopus*.
17° 6′ „ *β Canis*.

June 7.—Comet getting much brighter, although obscured greatly by moonlight. Position :—

At $6^h\ 10^m$ P.M., 22° 10′ from *Sirius*.
At $6^h\ 19^m$ P.M., 35° 28′ „ *Canopus*.

June 8.—Approaching the Sun rapidly. Position :—

At $6^h\ 17^m$ P.M. 21° 53′ from *Sirius*.
37° 25′ „ *Canopus*.

Since the last date I have not seen it, and conclude it has disappeared below the horizon.

I forward two sketches, one showing the general appearance of the comet to the naked eye, the other as seen in a small achromatic of about two inches aperture. There was no marked change in the general features during the whole period of its visibility. These sketches, however, represent it, I think, pretty fairly for June 1 at 6.30 P.M.

Pretoria, Transvaal,
South Africa :
1881, *June* 16.

Elements of Comet b 1881. By A. Graham, Esq.

The calculations were founded on the following meridian observations :

	G.M.T.	$\delta\alpha$	$\delta\Delta$	
	h m s	h m s	° ′ ″	
1881, June 23	11 30 54·4	$\delta\alpha = 5\ 34\ 55{\cdot}2$	$\delta\Delta = 44\ 53\ 20{\cdot}6$	Oxford
29	11 37 39·3	6 5 20·5	24 11 37·9	Oxford
July 4	11 58 36·3	6 51 29·1	14 47 0·9	Cambridge

After correcting for Aberration and Parallax from the elements by Dr. H. Oppenheim, given in the *Dun Echt Circular*, No. 24, a careful calculation gave:

$T = 1881$, June 16·45914 Greenwich Mean Time.

$\pi = 265^\circ\ 14'\ 46''.4$ Mean Equinox 1881 0
$\Omega = 270\ 58\ 1.2$ „
$i = 63\ 28\ 20.0$
$\log. q = 9.865812$

Heliocentric motion, direct.

The calculated middle place compared with the observed, gives:

C − O in longitude $+2''.6$ in latitude $+2''.8$

The heliocentric equatoreal coordinates, referred to the apparent equinox, June 30·0, are:

$x = [9.650203] \sin (356^\circ\ 28'\ 10''.6 + v)$ $d \log a = +.144 d\Omega$, $dA = +2.237 d\Omega$
$y = [9.991862] \sin (243\ 26\ 31.4 + v)$ $d \log b = -.344 d\Omega$, $dB = +0.384 d\Omega$
$z = [9.961381] \sin (328\ 29\ 46.3 + v)$ $d \log. c = +.362 d\Omega$, $dC = +0.091 d\Omega$

The corrections to the logarithms are to be applied to the units in the sixth decimal place, $d\Omega$ is expressed in seconds of arc, and v represents the true anomaly.

On 1881, July 13, with the Northumberland Equatoreal and square bar micrometer, five careful comparisons were made with B.A.C. 3199, which is contained in the Greenwich Observatory Catalogue of 2263 Stars, No. 908. Using the Greenwich place, the results, corrected for Parallax and Aberration, are:

1881, July 13·451648 G.M.T. $\Delta\alpha = 9^h\ 18^m\ 33^s.83$, $\Delta\delta = 81^\circ\ 49'\ 18''.5$

An Ephemeris calculated from my elements gives:

$\Delta\alpha = 9^h\ 18^m\ 33^s.79$, $\Delta\delta = 81^\circ\ 49'\ 20''.9$

There is thus hardly any room for doubt that the orbit is very nearly a parabola.

The Observatory, Cambridge:
1881, *September* 9.